impairment (or necessity, if an element is found to be proprietary in nature) based on the circumstances facing a typical carrier seeking to enter a local market with a strategy based on UNEs. By applying the standard to the type of entity most in need of UNEs to enter a market, the Commission will create a foundation that will support the broadest possible array of carriers competing to provide service to end users, and also promote the goal of universal availability of telecommunications services. Further, because Section 252(i) permits any other requesting carrier to obtain any interconnection, service, or network element provided to this paradigmatic carrier, a uniform rule based on such carrier will avoid unnecessary arbitrations and other litigation.

1. Uniform National Rules Are Needed to Achieve Section 251's Goals.

In the *Second FNPRM*, the Commission tentatively concluded that it "should continue to identify a minimum set of network elements that must be unbundled on a nationwide basis."[46] The Commission should adopt this tentative conclusion and establish nationwide unbundling rules. Such nationwide rules would be consistent with the 1996 Act and with the Commission's Local Competition proceedings from their inception, and would serve the "national policy framework" goal that underlies both. Only by adopting nationwide unbundling rules can the Commission fulfill the primary role assigned it in Section 251.

In the *Local Competition First Report and Order*, the Commission determined that it could find no justification for allowing access to a technically feasible UNE in one state but not another, in part because it recognized the need for nationwide rules as a source of consistency for both incumbents and competitors. The Commission also recognized that nationwide unbundling

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46 *Second FNPRM*, ¶ 14.

rules serve to equalize the bargaining positions of interconnecting parties, particularly because many CLECs seek to enter nationwide or regional markets. It also noted that uniform nationwide rules would avoid duplicative -- and wasteful -- litigation over the same issues in dozens of jurisdictions and would reduce the administrative burdens placed on state commissions by facilitating more efficient arbitrations.

Furthermore, the *Second FNPRM* makes clear that nothing in the Supreme Court's *Iowa Utilities Board* decision obligates the Commission to question its initial decision to adopt nationwide unbundling rules. Indeed, that decision reinforced the Commission's power to establish such rules by affirming the Commission's statutory authority to adopt nationwide rules designed to implement Section 251, including rules regarding access to UNEs. The Court acknowledged that the 1996 Act extended the reach of the Communications Act into issues previously addressed exclusively on a state-by-state basis, noting that, with respect to matters addressed in the 1996 Act, Congress had "unquestionably" shifted regulation from the state to the federal level.[47] Indeed, Section 251(d)(2) specifically directs the Commission to establish a list of UNEs; the Commission could not fulfill this primary role by ceding control over the list to the states. The Court also affirmed that nationwide standards issued by the Commission are consistent with Section 251(d)(3), by recognizing that state regulation of the local interconnection issues addressed by the 1996 Act must be consistent with the nationwide rules. Accordingly, the Commission clearly has authority under the Act to adopt nationwide rules regarding access to UNEs.

The Commission recently exercised such authority to issue nationwide rules regarding

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47 *Iowa Utils. Bd.*, 119 S. Ct. at 730, n.6.

another important component of local competition. In the *Advanced Services First R&O* the Commission concluded that nationwide rules are necessary to remove barriers to entry and to accelerate the provision of advanced services.[48] Such nationwide rules facilitate consistent and market-based business planning. The reasoning that supports nationwide collocation rules for advanced services applies with equal force to nationwide unbundling rules.

The *Advanced Services First R&O Order* also embodies a "best practices" approach to implementing local competition that truly maximizes the benefit of extraordinarily effective state commission policies. The nationwide collocation rules are based on a number of innovative regulations adopted by state commissions after developing factual records of the rules' practical procompetitive effects. By implementing these rules on a nationwide basis, the Commission has efficiently spread the procompetitive benefit of these regulations to markets throughout the country. As a result, no consumers in any one state will be forced to accept the status quo while their neighbors enjoy the enhanced service quality, wider range of competitive choices, and technological innovations that competition brings. This "best practices" feature of nationwide rules will prove crucial as the local competition rules continue to evolve in the context of technological, regulatory, and economic change. Such a centralized "clearinghouse of good ideas" also avoids the inherent delays and duplicative expenditure of resources that would result from a state-by-state adoption of the same regulation.

As the Commission noted in the *Local Competition First Report and Order*, the *Advanced Services First Report and Order*, and the *Second FNPRM*, nationwide unbundling rules greatly reduce the massive barriers to entry in local telephone markets. Such rules allow

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48 *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, CC Docket 98-147 (continued...)

CLECs to avoid having to develop multiple network configurations and marketing strategies that are dependant on a particular state's list of available UNEs. With a nationwide UNE list, competitors can formulate a single business plan that relies on access to one or more of those UNEs, knowing that the plan can be implemented in a number of markets. As a result, at least one crucial business decision -- which markets to enter -- would be competitively motivated rather than determined by regulation. The alternative, a geographic patchwork of access to varying lists of UNEs, could require carriers to revise, if not entirely reformulate, their business plan dozens of times. In addition, the absence of a minimum nationwide list of UNEs would be disproportionately disruptive both to smaller CLECs *and to ILECs*, which would lose the economies of scale provided by a uniform set of nationwide rules.

As a national provider of telecommunications and Internet-based services, any local strategy C&W USA adopts must, at least in part, build off its existing customer base. Because C&W USA's customers are geographically dispersed, its entry strategy cannot rationally be contained to a central office-by-central office approach. Rather, C&W USA must be able to market to and serve customers in multiple locations all around the country, particularly those customers, such as many medium and large business customers, that maintain offices in more than one location. Without national rules, C&W USA would be unable to develop such a strategy: unbundling rules that vary state by state would not allow C&W USA to expand its existing customer base in an efficient and cost-effective manner. Because the incumbent retains distinct advantages due to its economies of scale, connectivity, and density, competitive entry based on a variety of local strategies, rather than one national strategy, would prove unworkable.

(continued...)
(rel. Mar. 31, 1999) ("*Advanced Services First R&O*"), ¶ 23.

A nationwide list of UNEs also would provide financial markets, and the carriers accessing them, with greater confidence in their ability to evaluate business opportunities in the local telephone market. CLECs could seek investment more efficiently by presenting financial markets with a single, focused business plan capable of being implemented on either a regional or national scale. Moreover, nationwide rules would aid potential investors to the extent that they would be required to evaluate only a single business plan. This additional security provided to potential investors is crucial to CLECs because entry into the local market through the use of UNEs often requires access to substantial capital. Thus, the certainty and efficiency provided by nationwide unbundling rules would spur additional investment in local telephone competition.

In addition, a nationwide list of UNEs dramatically reduces the resources that must be expended and the delays that must be incurred to resolve the unnecessary litigation that inevitably will arise from identifying a list of UNEs that must be available. State arbitrations, including the implementation of arbitration awards, already represent a substantial expense for many CLECs attempting to interconnect with the ILECs. Moreover, state-by-state unbundling rules also would create the possibility of multiple independent court proceedings on appeal from state rules. Such litigation strains the resources of CLECs and the smaller ILECs, as well as the courts and agencies where it is conducted.

As in the *Advanced Services First Report and Order*, the Commission determined in the *Second FNPRM* that state commissions would have the ability to add to the nationwide list of UNEs that must be made available, pursuant to the Commission's criteria adopted in this proceeding.[49] The Commission has made clear that its list would form only a *minimum* of those

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[49] *See Second FNPRM*, ¶ 14.

UNEs that must be unbundled. However, allowing states to rule on whether a particular element must be unbundled in the first instance would be inconsistent with the adoption of nationwide unbundling rules and would greatly diminish the value of such rules. The Commission repeatedly has embraced the benefits of nationwide rules and it alone should issue the minimum list of UNEs that must be made available. As discussed below, the role of the states should be of greater substance with regard to the *removal* of specific UNEs from the nationwide list.

2. Characteristics of the Paradigmatic Carrier

Section 251(c)(3) permits "any requesting carrier" to obtain access to network elements, on a nondiscriminatory basis, "for the provision of a telecommunications service."[50] In addition, the Act permits requesting carriers to combine network elements with each other "in order to provide [any] telecommunications service."[51] The Commission further has determined that requesting carriers need not have *any* facilities of their own: the Act permits them to provide service exclusively through the use of ILEC UNEs.[52] Indeed, in upholding the FCC's so-called "all elements" rule, the Supreme Court expressly rejected a facilities-based requirement for the use of UNEs. The Court explained:

> [W]e think that the Commission reasonably omitted a facilities-ownership requirement. The 1996 Act imposes no such limitation; if anything, it suggests the opposite, by requiring in § 251(c)(3) that incumbents provide access to 'any' requesting carrier.[53]

By making network elements available to "any" requesting carrier, and by declining to impose a

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50 47 U.S.C. § 251(c)(3).

51 *Id.*

52 *See Local Competition First Report and Order*, ¶ 328.

53 *Iowa Utils. Bd.*, 119 S. Ct. at 736.

facilities-based requirement on UNE availability, Section 251(c)(3) broadens the pool of potential competitors that may enter local service markets, and as a result, *all* telecommunications markets.[54]

In determining whether to require an incumbent to unbundled a network element, the Commission must, as directed by the Act, examine whether "the carrier seeking access" -- or the "requesting carrier" -- would be impaired absent such access to the unbundled element in its ability to provide service. C&W USA submits that, in order to make a meaningful examination of whether the impair standard is satisfied with respect to a particular element, the Commission should base its analysis on whether a specific type of "requesting carrier" would be impaired: Specifically, the Commission should evaluate impairment from the perspective of the type of requesting carrier for which Congress created the UNE requirement -- the new entrant. The Commission should assume that, as contemplated by Section 251(c)(3), this paradigmatic requesting carrier plans to provide local services throughout the United States, to all types of customers, in all types of geographic markets. By ensuring that UNEs are available for this type of requesting carrier, the Commission will promote the rapid entry into the local markets by as many carriers as possible, thereby furthering the procompetitive goals of the 1996 Act.

II. THE OBJECTIVES OF THE ACT REQUIRE RETENTION OF THE UNES DEFINED IN RULE 319 AND THE ESTABLISHMENT OF ADDITIONAL UNES CRITICAL TO THE PROVISIONING OF DATA SERVICES.

In analyzing which UNEs should be made available, it is helpful to understand the relationship that each piece of a network has to other elements. In a functional sense, the

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54 *Local Competition First Report and Order*, ¶ 4 (local competition "is intended to pave the way for enhanced competition in *all* telecommunications markets, by allowing providers to enter all markets").

network can be viewed as a series of rings. Those elements at the center of the ring are used by every other network functionality and are the most difficult to replace with external elements. This central "ring" is embodied by all types of elements used to provide connectivity to the customer premises, whether the connectivity is used for traditional voice services or for data and other purposes. The outermost elements of the rings are add-on or optional functionalities, such as operator services or calling card platforms. These elements theoretically will be the easiest to replace, but, today, are as essential to the development of competitive markets as the core elements. Between these are additional rings, first (moving from the core) elements used for multiplexing and aggregation, then elements used for routing and switching, and, finally, elements used for networking between equipment and points of interface and elements used for signaling.

Critically, each ring works in conjunction with the rings inside and outside of it, and the difficulty in substituting other elements increases as one moves inward toward the core. That is, because the ILEC network is a network of elements, the Commission must view each element not in a vacuum, but in relation to each of the others. Without connectivity and interchangeability, the ubiquitous availability of a particular element is inconsequential. In other words, the agency cannot merely consider whether substitutes for an ILEC UNE are available, but, rather, whether any substitutes can work as well as the ILEC UNE when used in combination with the incumbent's network. Thus, the Commission must incorporate these concepts into its unbundling analysis and recognize these interrelationships, whether examining a proposed UNE originally on the list or one only now being proposed.

C&W USA's discussion of the specific UNEs to be unbundled is organized around this concept. Provision of each and every one of these elements on an unbundled basis satisfies the

"impair" standard. [55] First, it is clear that failure to obtain access to these elements on an unbundled basis would result in a material increase in cost in the competitor's ability to provide comparable services. With regard to some of these elements -- in particular, the local loop, elements providing multiplexing and aggregation capabilities, and other elements close to the center of the elemental ring -- there simply are no alternative sources, and, unless competitors are required to make the prohibitive expenditures necessary to construct new facilities, local competition simply will not develop. For other elements -- such as those providing vertical features or add-on functionalities, like directory assistance or operator services -- alternative sources may be available. However, any "alternative sources" that might be available will not be of a quality comparable to ILEC provisioned facilities or functionalities and will prevent new entrants from competing on an equal basis.[56]

Where a new entrant cannot offer or provide services that are of a quality comparable to that of the incumbent, at a similar cost and timeliness, the competitor is materially impaired in its ability to compete. Thus, without access to the elements identified below, competitors would be required to invest immediately in duplicative facilities in order to compete for customers. This would involve a tremendous initial investment in facilities before having a customer base large enough to justify an expenditure of the required magnitude, which increases the risks of entry exponentially. Where the new entrant can purchase unbundled elements from the incumbent, the

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55 Application of the "impair" standard to the connectivity UNEs ends the analysis for purposes of Section 251(d)(2)(A). In the *Local Competition First Report and Order* the Commission concluded that loop elements, in general, are not proprietary in nature, and hence the "necessary" standard need not be applied. *See Local Competition First Report and Order*, ¶ 388.

56 *See, e.g., Local Competition First Report and Order*, ¶ 482 (ILEC signaling systems must be provided on an unbundled basis because alternative signaling methods "would provide
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competitor has the ability to build facilities gradually, in a less capital intensive manner, and may strategically deploy the loops to its target customers in a more efficient and economical way. Further, and significantly, ability to purchase these elements from the incumbent will enable the competitor to use the capital that otherwise would have been allocated to new construction in a more efficient and worthwhile way.

Finally, given the costs and other burdens of new construction of local facilities and the corresponding delays in, or downright obstacles to, entry into the local market, the number and scope of customers that will receive new, competitive services by definition will be materially restricted unless new entrants have access to these network elements. Moreover, even where new entrants would have the incentive and the wherewithal to construct new facilities, the competitive realities of their situation would result in their targeting only certain limited categories of customers. Accordingly, competition would develop only with respect to high volume users (such as businesses) or to premises with multiple customers (either business or residential), thereby enabling new entrants to maximize the profits from their investments.

The current market position of C&W USA itself tellingly illustrates the importance of competitive access to these ILEC UNEs, and, correspondingly, the material delays to entry and diminishment of consumer choice that *will* occur if carriers are forced to obtain -- or try to obtain -- alternative access to essential network elements. C&W USA announced just last month a plan to invest $700 million over a three-year period to upgrade, enhance, and expand its Internet backbone network in order to maintain its status as a preeminent provider of Internet services. Importantly, the funds available to accomplish this important business plan are limited, and

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a lower quality of service," and hence would impair competitor's ability to provide
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C&W USA's plans depend in part on access to ILEC UNEs.

If, however, C&W USA is forced to construct new facilities in connection with this project, rather than expanding its network by purchasing UNEs, a large majority of the available funds necessarily will go to construction of loops, switches, and other essential network facilities, and C&W USA will be forced to scale back its plan. Accordingly, C&W USA's ability to invest in the necessary facilities to provide a wholly owned end-to-end service to its customers is extremely limited, if not impossible, without access to UNEs: C&W USA would be materially and substantially delayed in entering some markets, and could be precluded entirely from entering other markets. This result is flatly contrary to the procompetitive mandates of the 1996 Act. The Commission must be careful to ensure that the UNE scheme it adopts in this proceeding will not discourage or prevent providers such as C&W USA from expanding and upgrading its networks and increasing service options for U.S. consumers.

A. UNEs Providing Connectivity To Customer Premises

The elements used by incumbents to provide connectivity to customer premises are at the core of the economies unique to the ILECs, and are perhaps the most important remnant of their positions as monopolists. No other providers have ubiquitous loops to every customer premises in the nation; no other providers can replicate local loops to customers (except for only a few customers generally within high-density business districts). Indeed, rather than try to replicate the facilities used by the incumbents to connect to their customers' premises, hopeful competitors instead generally have chosen to take the route of buying or merging with local

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service).

incumbents, or, for example, in the case of AT&T, of purchasing the only currently available alternative to the ILEC loops -- the cable facilities that also pass customer premises. Of course, only a very few competitors have the resources to enter the local markets by this technique. Most new entrants must rely on provision of these essential elements by the incumbents, pursuant to Section 251(c) of the 1996 Act.

Unbundled access to connectivity UNEs, then -- and, particularly, to the local loops -- is crucial to the development of competition in the local markets. Accordingly, C&W USA submits that connectivity UNEs should include the local loops, as currently identified in Section 319. Further, however, the Commission should modify the existing local loop definition in order to promote and enhance competition in the advanced services market, by including clean copper loops, high capacity loops (DS1, DS3, OC3, OC12, OC48), and, importantly, dark fiber.

Further, C&W USA urges the Commission to clarify that the local loop includes the network interface device ("NID"). For practical purposes, the NID effectively is a component of the local loop -- they are routinely connected elsewhere in the incumbent's network -- and should be provisioned accordingly. Indeed, in the *Local Competition First Report and Order* the Commission expressly included the NID in its discussion of the loop.[57] Accordingly, C&W USA submits that the Commission should ensure that when the incumbent provides the unbundled loop, the NID must be provisioned in an integrated manner with the loop, unless the requesting carrier competitor directs that the NID need not be provided by the incumbent. In addition, C&W USA urges the Commission to clarify that access to the NID element includes unrestricted access to the customer side of the NID -- that is, ILEC-owned inside wire. It is

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57 *Local Competition First Report and Order*, ¶¶ 392-96.

becoming increasingly apparent, in C&W USA's experience, that the access to wire within customer premises -- particularly multiple dwelling units -- is a barrier to entry into the local market.

B. UNEs Providing Multiplexing And Aggregation Capabilities

Second to the connectivity elements in importance are the elements that provide the ability to multiplex or aggregate traffic originating from individual loops. These facilities represent the most efficient and effective means of carrying traffic to the central office and beyond, and, like the loop elements identified above, are crucial to a carrier's ability to provide competitive advanced broadband voice, video, and data services. The multiplexing facilities and functionalities that should be defined as UNEs include, but are not necessarily limited to, integrated digital loop carriers and digital subscriber line access multiplexers.

Multiplexing performs critical network functions that allow carriers to combine elements efficiently, by converting signals and aggregating, disaggregating, and routing traffic. Multiplexing, for example, is necessary for carriers to aggregate loops onto high capacity transport. Significantly, there essentially are no competitive wholesale alternatives to ILEC provision of multiplexing functionalities, which leaves self-provisioning as the only option available to competitors if these elements are not unbundled. Critically, self-provisioning would necessitate massive capital expenditures on equipment and collocation, which many carriers simply cannot support. For C&W USA, in particular, with its geographically diverse customer base, self-provisioning of multiplexing and routing elements would be prohibitively expensive. Moreover, it is C&W USA's experience that efforts to self-provision even in the limited circumstances where it might be economically justified are routinely thwarted and delayed by incumbents. For all of these reasons, competitors that do not have access to unbundled ILEC

multiplexing and aggregation elements effectively would be forced to forgo offering certain services and entering certain markets, and end-user customers would be left with fewer service choices.

C. UNEs Providing Routing And Switching

Routing and switching functions are those elements necessary to direct the various types of traffic from the local loop to its ultimate destination. These elements include local and tandem switching capability, as currently defined in Section 319, as well as associated switch-based capabilities and features such as customized call routing functions and related databases.

Access to unbundled switching elements is particularly critical for competitors such as C&W USA which have a geographically dispersed customer base; lack of access to these elements would both materially increase the cost of, and materially delay, the competitor's entry into the local markets. First, as the Commission acknowledged in the *Local Competition First Report and Order*, although each switch does not necessarily carry a high dollar amount, it ordinarily takes at least nine months, and often up to two years, to actually make the purchase and install the switch.[58] For C&W USA, with its widespread customer base, this would involve the purchase and installation of *multiple* switches over a *substantial* period of time, thereby exponentially increasing the burdens of self-provisioning of this element. Further, competitors such as C&W USA would be forced to bear the additional costs of collocating equipment in each and every end office in a region where a customer is located, even if it were able to use its own switches exclusively. In sum, at this time there simply are no viable alternatives to ILEC provision of unbundled routing and switching elements.

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58 *Local Competition First Report and Order*, ¶ 411.

In addition, C&W USA submits that is essential for the timely development and deployment of advanced services that incumbents be required to make packet switches available on an unbundled basis. In its *Advanced Services First R&O* the Commission recognized that, in order to fulfill the mandate of Section 706, it is "critical" that the marketplace for these services be conducive to investment, innovation, and meeting the needs of consumers."[59] To that end, the Commission reinforced its commitment to "removing barriers to competition" so that competitors are able to compete effectively with incumbents and their affiliates in the provision of advanced services.[60] Although it deferred action on various proposals that would require the unbundling of certain elements for the specific purpose of promoting advanced services, the Commission expressly acknowledged the importance of packet-switched transmission of voice and data services.[61]

D. UNEs Providing Networking Functions

The elements that C&W USA has identified as related to networking functions provide the ability to transport traffic from a central office to switches, tandems, backbone networks, and interconnecting carriers, whether dedicated to a particular customer or carrier, or shared among more than one customer or carrier; generally, the Commission has identified these elements, in part, in Section 319 as interoffice transmission facilities. In addition, essential -- and integral -- to the operation of transport facilities are networking elements such as signaling networks and call-related databases, which facilitate the routing and completion of traffic, and thereby enable

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59 *Advanced Services First R&O*, ¶ 2.

60 *Id.*, ¶ 3.

61 *Id.*, ¶¶ 5, 7.

the effective interconnection of incumbent and competitor networks. Access to unbundled ILEC networking elements, as the Commission has recognized, encourages efficient network architecture deployment and promotes the ability of new entrants -- and well-established competitors seeking to expand their service offerings -- to combine their own facilities with those of the ILEC.

In addition to the existing Section 319 definitions of transport facilities and signaling and related databases, however, C&W USA urges the Commission to identify as networking elements that must be provided on an unbundled basis packet transport facilities and dark fiber transport. This expanded definition of what constitutes a "transport facility" will ensure the continuing development and deployment of advanced services and provide additional transport capacity and options for competitors.

E. UNEs Providing Vertical Features Or Add-On Functionalities

These elements provide the ability to utilize existing infrastructure to provide additional or related functionalities to end users. Although it is probable that these will be among the first elements that may be eliminated from the requirements of Section 251(d)(2), at this time there are no equivalent competitive substitutes for vertical features and add-on functionalities such as operator services and directory assistance. These elements must be truly interchangeable and work on a comparable basis with the other elements discussed above: elements in this category *must* function seamlessly with the other facilities and functionalities provided by incumbents on an unbundled basis, or customers will remain with the incumbent so as to ensure continued receipt of the full package of services they now receive. For these reasons, in the *Local Competition First Report and Order*, the Commission found that unbundled access to the facilities and functionalities used by incumbents to provide operator services and directory

assistance is necessary to facilitate competition in the local exchange market.[62]

F. Operations Support Systems

The Commission found in the *Local Competition First Report and Order* that the "massive" operations support systems ("OSS") employed by incumbents, and the information those systems maintain and update to administer telecommunications networks and services, represent a significant and material barrier to entry.[63] It is these systems that determine the speed and efficiency with which incumbents -- and, potentially, competitors -- can market, order, provision, and maintain telecommunications services and facilities. If new entrants cannot perform these basic service functions for customers, they will not be able to entice customers away from the incumbent, and, where they do successfully market to ILEC customers, will lose those customers either because of delay and confusion with regard to the actual changeover from one carrier to the other, or because the competitor cannot provide the support services that customers have come to expect from the incumbent. In sum, OSS must continue to be a separate UNE, in that it is an indispensable component to the effective functioning of a wholesale market: without access to ILEC OSS, incumbents could make it prohibitively difficult for competitors to use both UNEs and resold services, which, clearly, would severely and materially impair their ability to compete.

C&W USA believes that the current definition of the OSS functions that must be unbundled is appropriate, as a bare minimum. That is, the Commission must require ILECs to provide unbundled access to the pre-ordering, ordering, provisioning, maintenance and repair,

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62 *See Local Competition First Report and Order*, ¶ 534.

63 *Local Competition First Report and Order*, ¶ 516.

and billing functions supported by the incumbent's databases and information. However, C&W USA submits that, in recognition of the fundamental centrality of OSS functions to a new entrant's ability to compete, the agency should enhance the OSS standards, and include a full operations testing requirement and anti-backsliding performance measurements for incumbents.

G. Combinations Of UNEs Also Satisfy The "Impairment" Standard And Should Be Mandated.

The Commission's authority to require incumbents to provide nondiscriminatory access to combinations of network elements was affirmed by the Supreme Court in its Iowa Utilities Board decision. The Court reversed the Eighth Circuit's invalidation of Commission Rule 315(b), which prevents incumbents from separating preexisting combinations of UNEs. The Court agreed that "[i]t is true that Rule 315(b) could allow entrants access to an entire preassembled network,"[64] thereby confirming that a preassembled network -- that is, combinations of elements -- must be made available. Moreover, access to combinations was reinforced by the Court's acceptance of the all elements rule: the Court held that "any" carrier, including those without their own facilities, must have access to combinations of UNEs.[65] Accordingly, the Commission clearly has the statutory authority to ensure that incumbent carriers provide nondiscriminatory access to combinations of network elements.

Having already concluded that "[t]he ability of requesting carriers to use unbundled network elements, including combinations of unbundled network elements, is integral to achieving Congress' objective of promoting rapid competition in the local telecommunications

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64 *Iowa Utils. Bd.*, 119 S. Ct. at 737.

65 *Id.* at 736.

market," [66] the Commission now must exercise its authority to require, clearly and unequivocally, that the ILECs provide access to UNE combinations, including the UNE platform and the Extended Enhanced Link ("Extended Link" or "EEL"), without restriction. Access to these combinations is particularly important since they allow competitors to access the "last mile" of the network, creating the potential to reach customers at the same broad level the incumbents enjoy. Indeed, the platform and the EEL comprise the only economically reasonable options currently available for securing a reach of that breadth. Accordingly, the platform and the EEL are crucial to the development of competitive local markets, particularly for low-volume customers such as residential and rural users.

The platform will prove critically important to ensuring that all consumers enjoy the fruits of local competition because it facilitates mass market competitive entry, which undoubtedly will bring competitive choice to a greater number of users in a shorter period of time. Such mass market entry is made possible because the platform takes advantage of the efficiencies inherent in preexisting network combinations. Significantly, regional and national competitors will find their multiple market entry strategies dependent on access to the platform. Similarly, the Extended Link also is vital to the development of local competition. It allows switch-based CLECs to provide service to distant customers without having to collocate in each of the central offices serving those customers. As such, CLECs avoid the costs and delays that inevitably plague collocation arrangements with incumbents.

Being able to avoid unnecessary collocation with the incumbents, by utilizing the platform or the Extended Link, would remove a substantial and material financial barrier for

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66 *Second FNPRM*, ¶ 2.

CLECs seeking access to customers outside the areas in which they are collocated. As noted, without the ability to use combinations, competitors would have little choice but to collocate to obtain access to UNEs. A mandatory collocation regime of this sort would impose unduly burdensome, discriminatory, and wasteful financial burdens on competitors. As the Kentucky Public Service Commission emphasized, "the requirement that a CLEC may combine UNEs only by means of collocation is both discriminatory and unwarranted. The provision violates the Act and must be reformed."[67]

The Commission also must adopt combination rules that will prevent anticompetitive practices by the ILECs once combinations are made available. One such favorite ILEC practice is the addition of unwarranted charges, such as "glue charges," to the cost of combinations. There is no legal, economic, or rational basis for imposing glue charges on competitors. It costs incumbents absolutely nothing to combine UNEs that already are combined, and any charges for the initial installation of UNEs already are represented in nonrecurring charges for those elements. Moreover, ILECs serve their own customers over the platform but do not incur costs for combining elements. Finally, the imposition of recurring glue charges for an alleged one-time event is patently unjust.

Nevertheless, ILECs in a number of states have sought to impose such charges under the guise of "costs" associated with disconnecting and reconnecting UNE combinations. This practice is unnecessary and is no more than an ILEC attempt to impose redundant, wasteful costs on the combinations they have provided -- albeit reluctantly -- to competitors. As the Maryland

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67 *Investigation Regarding Compliance of the Statement of Generally Available Terms of BellSouth Telecommunications, Inc. with Section 251 and Section 252(d) of the Telecommunications Act of 196*, Order, Case No. 98-348, Kentucky Public Service Commission (August 21, 1998) (emphasis added).

Public Service Commission stated,

> [s]uch separation and recombination serves no public purpose and provides no cost benefits. [Bell Atlantic]-MD will also incur additional costs putting these elements back together again in collocation space. These additional and unnecessary costs ultimately would be passed on to the consumer. Furthermore, disassembling network elements will put customers out of service unnecessarily while the disconnection and subsequent reconnections are made.[68]

ILECs must not be allowed to exact any charges for UNE combinations in addition to those cost-based charges that are embedded in the preassembled combinations. The Commission should adopt proactive rules to prevent this extremely inefficient practice and its anticompetitive effects.

Despite the fact that the Commission already adopted rule section 51.309, ILECs repeatedly attempt to impose discriminatory restrictions on the ability of CLECs to access combinations of network elements to use as they see fit in provisioning service.[69] The rule expressly states that incumbents may not impose any "limitations, restrictions, or requirements on requests for, or the use of, unbundled network elements that would impair the ability of a requesting telecommunications carrier to offer a telecommunications service in the manner the requesting telecommunications carrier intends."[70] According to the rule, competitors -- not the incumbents -- have the right to determine how a combination will be used to provide service. The ILECs' blatant disregard for this rule compels the Commission to reiterate, and reinforce if

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68 *Petitions for Approval of Agreements and Arbitration of Unresolved Issues Arising Under Section 252 of the Telecommunications Act of 1996*, Order, Case No. 8731 -- Phase II(c), Order No. 74671 (Nov. 2, 1998).

69 Incumbents have sought restrictions on the elements available in combinations, the services that could be offered over particular combinations, the customer classes that could be served using a combination, and the geographic area where combinations could be used. *See, e.g., In the Matter of the Investigation Regarding Local Exchange Competition for Telecommunications Services, et al.*, Docket Nos. TX95120631, TO96070519, TO98010035, TO98060343, TX98010010, New Jersey Board of Public Utilities, Bell Atlantic-New Jersey Proposals (Nov. 5, 1998).

70 47 C.F.R. §51.309(a).

necessary, its prohibition on the imposition of anticompetitive restrictions on access to and use of combinations by CLECs. Such restrictions are a serious impediment to the ability of CLECs to use combinations such as the platform or the EEL, and materially impairs their ability to compete with the ILECs in any meaningful way.

In sum, if genuinely competitive local markets are to be realized, the Commission must affirmatively prohibit the ILECs from restricting CLECs' access to and use of UNE combinations. Without such prohibitions, the ILECs will continue to demonstrate a blatant disregard for the Commission's local competition rules, delaying competitive entry by forcing CLECs to litigate additional unreasonable restrictions on combinations. The amount of time, energy, and money that has been squandered in attempts to overcome the stall-through-litigation tactics of the ILECs, which otherwise could have been invested in the competitive local exchange market, is disgraceful. Importantly, it is the end-user consumer that, ultimately, is most harmed by these tactics. For these reasons, Congress and the Commission always have understood the importance of the ILECs' obligation to provide nondiscriminatory access to combinations, but now the Commission also understands how, in practice, the ILECs will seek to evade that obligation by repeatedly restricting such access. It is crucial to the competitive local market that the Commission act to prohibit further ILEC restrictions on combinations and put an end to the seemingly endless litigation they produce.

III. THE COMMISSION SHOULD ESTABLISH ORDERLY PROCEDURES FOR CONSIDERATION OF THE REMOVAL OF UNEs.

Although C&W USA recognizes and hopes that, in the future, a functioning wholesale market may exist for certain elements, C&W USA cautions the Commission about removing any

UNEs from the list at this time. The Act has been in place for three years. While competition is beginning to take hold in certain limited areas, statistics regarding existing ILEC domination tell a clear and compelling story: ILECs continue to have a stranglehold over most of the local customer base. Accordingly, C&W USA urges the Commission to use this proceeding to reaffirm its commitment to implementing the Act's vision of national competition. The use of UNEs is central to the Act's goals of stimulating immediate and viable competition. Any attempt to minimize the use of UNEs at this time would be misguided: such a course of action would not merely cause competition to stagnate, it inevitably would cause a *reversal* in what has been achieved thus far.

The use of UNEs helps to catalyze competition and, just as importantly, helps to erode the advantages in economies of scale, density, and connectivity that ILECs maintain through their continuing monopoly status. The importance of pursuing a commitment to UNEs is as clear and as necessary as the Commission's recently demonstrated commitment to ensuring fair and efficient collocation. The Commission must use these two policies in tandem to break the local bottleneck and realize the Act's goal of creating a truly competitive local market. The Supreme Court has largely reinforced the policies adopted by the Commission in 1996; now that the legal battle essentially is over (at least for now), the Commission should continue along the path it has trailblazed so far, and let its rules break through the barriers that continue to block progress.

A. The Commission Must Retain Sole Authority To Remove Nationwide UNEs From The List.

For the same reasons that state commissions should not be permitted to decide which UNEs must be unbundled in the first place, they must not be permitted unilaterally to remove a UNE from the nationwide list. Clearly, this would nullify the benefits of adopting minimum

nationwide rules. These benefits are tied inextricably to the industry's understanding that a list of minimum UNEs *will be uniformly available* pursuant to the Commission's decision in this proceeding. Allowing states to remove UNEs independently would lead inevitably to the Balkanization of the unbundling rules among the states. Even before any state actually removed a UNE from the list, the mere possibility that UNEs *could* be removed on a state-by-state basis would eliminate the certainty and efficiency of nationwide rules. For these reasons, and as discussed below, the Commission must adopt truly nationwide unbundling rules, which include a list of minimum available UNEs that cannot be eroded by state commissions.

B. The Commission Should Adopt An Orderly Procedure For Examining UNEs That Includes Input From State Commissions.

As competition in the local exchange develops, UNEs may no longer need to be included on the minimum nationwide list. The Commission should, therefore, adopt an orderly procedure for removing UNEs from that list. Such a procedure should be analogous to a streamlined version of the Section 271 application process, and should consist of two basic steps. First, an ILEC should petition a state commission for a ruling that specific local circumstances have removed the need for mandatory access to a particular ILEC UNE. The state commission then would develop and consider the record presented by the ILEC before rendering an opinion on the petition, pursuant to the criteria established in this proceeding. Both the ILEC and the state commission must specify the exact geographic locations that are subject to the request, which should be no smaller than the zones the state commission establishes to implement the FCC's geographic deaveraging requirements. It is highly unlikely that the specific circumstances that form the basis of the petition would be present at every relevant point in the ILEC network, and even more unlikely that they would have any validity on a statewide basis. By relying on the

zones established for geographic deaveraging, the Commission would further two important goals -- equity and efficiency. First, these zones generally occupy geographic areas that are large enough so that upon removal of a particular UNE from the nationwide list, CLECs are able to make strategic entry decisions based on rational market boundaries, yet are small enough so that ILECs have reasonably foreseeable opportunities to seek removal of particular elements from the nationwide list. Second, because these zones reflect geographic areas that share similar economic characteristics regarding the cost of UNEs (particularly local loops), it is reasonable to assume that the same economic factors affecting entry decisions and the development of wholesale markets for UNEs would be similar throughout one zone.

The second step in the process assumes a favorable state commission opinion on the ILEC petition. The ILEC then would petition the Commission to remove the UNE from the minimum list in those areas approved by the state commission, presenting the state commission's opinion and the record developed. Ultimately, the Commission would render a final decision on whether the UNE should in fact be removed from the nationwide list in specific locations.

C. The Commission Must Provide An Orderly Transition Period For UNEs That Are Removed From The Nationwide List.

After a Commission determination that a particular UNE no longer should be unbundled, that UNE should undergo a "phase out" period, during which it would remain available, in order to avoid market disruption. Competitive users of the UNE must have a minimum period before that UNE becomes unavailable to them to take whatever steps are necessary to continue their provision of service without the UNE. The alternative -- allowing the ILECs to immediately cease unbundling a network element as soon as it is removed from the list -- would put CLECs at a great competitive disadvantage because the ILECs, and their customers, never would face the

possibility that a particular UNE that is critical to their business plans could be stripped away without adequate warning and without time to make alternative arrangements.

Such a phase-out period must be sufficient to allow CLECs the practical ability to reconfigure their operations without degrading or disrupting service to their customers, and must take into account the length of time required to obtain alternative network arrangements from the ILECs. However, provisioning intervals have been a significant point of contention among parties and state commissions. Disagreements have arisen with regard to what the appropriate intervals should be, the frequency of missed provisioning intervals, and what the consequences for missed intervals should be. One conclusion is clear: it takes time to configure, order, obtain, and deploy UNEs taken from the ILEC. The Commission should consider these ILEC provisioning intervals to be the minimum time required for CLECs to ensure that they can obtain and implement substitutable service without customer disruption.

It also is crucial that ILECs continue to honor existing interconnection agreements until their expiration. CLECs have invested substantial resources in negotiating, arbitrating, and implementing their current interconnection agreements. They, and their investors, committed these resources with an expectation of reliance on these agreements. As contemplated by the Act, the Commission, and state commissions, CLECs and ILECs have looked primarily to their agreements to arrange their operations. These agreements are complex documents that embody the interconnecting parties' negotiations on a great number of interrelated aspects of their relationship. Both CLECs and ILECs expended the resources to develop these agreements under a regime of a nationwide minimum list of available UNEs that does not currently allow for the removal one or more of those UNEs from the list. It would be patently unfair and a waste of the substantial resources already invested in local competition to allow ILECs to ignore fundamental

obligations in their current interconnection agreements. Therefore, the Commission should adopt rules that require ILECs to continue to unbundle, at a minimum, those UNEs identified in their existing agreements.

In addition, all reconfiguration, early termination, and non-recurring charges should not apply to, or should be waived for, CLECs that are forced to transition from a UNE that becomes unavailable as a result of being removed from the nationwide list. After removal from the list, ILEC provision of such a UNE would be left to the discretion of the individual ILEC. If an ILEC voluntarily chooses to cease making that UNE available, it should bear the cost of seeking to change the parties' relationship. CLECs will already be forced to incur the costs of making alternative business and operational arrangements to accommodate the unavailability of the UNE; the CLEC should *not* be forced to pay the additional transition costs for a network change initiated by the ILEC. The Commission's UNE rules must require that ILECs bear the costs of their voluntary network changes.

The rules adopted by the Commission also should grant CLECs a right to petition the Commission for waiver of any determination that access to a particular UNE should no longer be available. Such a right to petition for continued access to the UNE would allow CLECs the opportunity to demonstrate that removal of the UNE under specific conditions or in specific locations is inappropriate. This right would provide an important "backstop" for CLECs before the significant event of actually losing access to a UNE occurs. This procedural right would be particularly important in smaller and rural markets that may be subsumed into locations where UNEs are removed from the nationwide list, but where true competitive alternatives to the UNE may not be sufficiently realized. In such markets, local competition would suffer a disadvantage

if CLECs are not allowed to demonstrate unique circumstances that require continued access to a particular UNE.

Finally, the Commission should make clear that ILECs *must* continue to abide by their existing unbundling obligations until a definitive decision has been made by the agency to remove a particular element from the list. The Commission should state explicitly that it will not tolerate any attempts by ILECs to hinder the use of UNEs by CLECs while a petition for removal of a UNE is pending at the state or federal level. The mere act of filing such a petition should create no uncertainty regarding an ILEC's duty to provision UNEs to CLECs. Given the past practices of some ILECs during the pendency of the appeal of the Commission's *Local Competition First Report and Order*, such actions would not be out of the ordinary and should be rejected summarily.

CONCLUSION

For the foregoing reasons, the Commission should act promptly to redefine UNEs in furtherance of the Act's goal of creating and maintaining robust local competition. Further, the agency should interpret the terms "necessary" and "impair" to promote the objectives of lowering entry barriers and encouraging the widespread introduction of competition for end users. Applying these standards, it should define the UNEs described above and mandate their availability on a national basis.

Respectfully submitted,

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May 26, 1999

CERTIFICATE OF SERVICE

I, Rebekah J. Kinnett, hereby certify that on this 26th day of May, 1999 copies of the foregoing Comments of Cable Wireless USA, Inc. were served by hand on the following:

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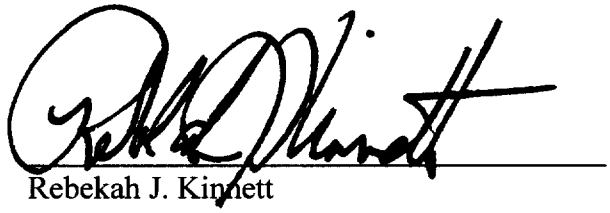

Rebekah J. Kinnett

CompTel Proposed Rules
CC Docket No. 96-98
5/26/99

The Competitive Telecommunications Association ("CompTel") proposes the following rules for the nondiscriminatory access to unbundled network elements pursuant to Section 251(c)(3) of the Communications Act, as amended. Changes or additions to rules currently listed in 47 C.F.R. Part 51 are underlined.

§ 51.311 Nondiscriminatory access to unbundled network elements.

(a) The quality of an unbundled network element, as well as the quality of the access to the unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall be the same for all telecommunications carriers requesting access to that network element.

(b) The quality of an unbundled network element, as well as the quality of the access to such unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall be at least equal in quality to that which the incumbent LEC provides to itself. If an incumbent LEC fails to meet this requirement, the incumbent LEC must prove to the state commission that it is not technically feasible to provide the requested unbundled network element, or to provide access to the requested unbundled network element, at a level of quality that is equal to that which the incumbent LEC provides to itself.

(c) Previous successful access to an unbundled element at a particular point in a network, using particular facilities, is substantial evidence that access is technically feasible at that point, or at substantially similar points, in networks employing substantially similar facilities. Adherence to the same interface or protocol standards shall constitute evidence of the substantial similarity of network facilities.

(d) Previous successful provision of access to an unbundled element at a particular point in a network at a particular level of quality is substantial evidence that access is technically feasible at that point, or at substantially similar points, at that level of quality.

(e) Incumbent LECs shall provide CLECs access to any and all equipment and facilities used to combine network elements in the same manner that the incumbent LEC uses such equipment and facilities to combine elements in the provision of their own telecommunications services.

§ 51.3xx Necessary and Impair

(a) A carrier is impaired if a failure to obtain access to a network element would impose a material increase in cost, a material delay, or would materially restrict the number or scope of customers likely to receive the service any requesting carrier seeks to offer. Impairment would arise if, for example, any one of the following applied:

(1) a denial would materially increase the cost to provision, combine, or otherwise utilize a requested network element in connection with other elements of the ILEC's network or the network of an alternative provider,

(2) a denial would cause a requesting carrier to experience a material delay to provision, combine or otherwise utilize a network element in connection with other elements of the ILEC's network or the network of an alternative provider, or

(3) a network element exhibits material economies of scale and scope.

(b) A carrier's ability to provide telecommunications service will be presumptively impaired by denial to a particular network element unless the Commission finds that:

(1) network element provisioning systems are capable of delivering any other network element (or network element combinations) to alternative providers of the particular network element on terms, quantity and quality comparable to the access that the incumbent carrier receives, and

(2) for a geographic area no smaller than an Major Trading Area, there are sufficient alternative providers of the particular network element capable of supplying the network element on terms that are comparable in quality, cost and efficiency to those of the ILEC, and in quantities sufficient to result in a competitive market for such elements and facilities.

(c) Access to a network element that has a proprietary component is necessary if a material loss in the functionality of the network element would result without access to its proprietary characteristic and if the requesting carrier's ability to provide the intended service would otherwise be impaired in accordance with paragraph (a) above.

§ 51.319 Specific unbundling requirements.

An incumbent LEC shall provide nondiscriminatory access in accordance with § 51.311 of this part and section 251(c)(3) of the Act to the following network elements on an unbundled basis to any requesting telecommunications carrier for the provision of any telecommunications service:

(a) *Local Loop*. The local loop network element is defined as the transmission capability (regardless of the transmission media involved, including unused transmission media such as dark fiber) between a requesting carrier-designated point in an incumbent LEC central office (or an equivalent location designated by the requesting carrier where the loop can be connected to other ILEC network elements or the network facilities of another carrier) and an end user customer premises.

(1) The local loop network element shall encompass all features, functions and capabilities of the underlying transmission facilities used to provision the local loop network element.

(2) The purchaser of the local loop network element shall obtain exclusive use of the transmission capability of this network element.

(3) The local loop network element shall include the network interface device.

(4) Wherever it is technically possible, the incumbent LEC shall provide the local loop network element configured in a manner to support the transmission specifications of the requesting carrier.

(5) At a minimum, ILECs should offer the following types of local loops: 2-wire analog, 4-wire analog, ISDN-PRI, ISDN-BRI, xDSL capable, xDSL equipped, high capacity loops (e.g., DS1, DS3, OC 12 and higher), and dark fiber loops.

(b) *Network Interface Device*.

(1) The network interface device network element is defined as a cross-connect device used to connect loop facilities to inside wiring, along with any facilities (such as riser cable or inside wire) owned by the incumbent LEC.

(2) An incumbent LEC shall permit a requesting telecommunications carrier to

connect its own local loops to the inside wiring of premises through the incumbent LEC's network interface device. The requesting telecommunications carrier shall establish this connection through an adjoining network interface device deployed by such telecommunications carrier;

(c) *Switching Capability*.

(1) Local Circuit Switching Capability.

(i) The local switching capability network element is defined as:

(A) line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card;

(B) trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and

(C) all features, functions, and capabilities of the switch, which include, but are not limited to:

(*1*) the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the incumbent LEC's customers, such as a telephone number, white page listing, and dial tone; and

(*2*) all other features that the switch is capable of providing, including but not limited to custom calling, custom local area signaling service features, and Centrex, as well as any technically feasible customized routing functions provided by the switch.

(ii) An incumbent LEC shall transfer a customer's local service to a competing carrier within a time period no greater than the interval within which the incumbent LEC currently transfers end users between interexchange carriers, if such transfer requires only a change in the incumbent LEC's software;

(2) Tandem Circuit Switching Capability. The tandem circuit switching capability network element is defined as:

(i) trunk-connect facilities, including but not limited to the connection between trunk termination at a cross-connect panel and a switch trunk card;

(ii) the basic switching function of connecting trunks to trunks; and

(iii) the functions that are centralized in tandem switches (as distinguished from separate end-office switches), including but not limited to call recording, the routing of calls to operator services, and signaling conversion features;

(3) Packet Switching Capability. The packet switching capability network element is defined as the assembling, disassembling, addressing, conversion or routing of digital information in packet form. The packet switching capability network element shall include all features, functions and capabilities of the packet switching and/or routing devices.

(d) *Interoffice Transmission Facilities*.

(1) Interoffice transmission facilities are defined as incumbent LEC transmission facilities dedicated to a particular customer or carrier, or shared by more than one customer or carrier including the ILEC, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers.

(2) The incumbent LEC shall:

(i) provide a requesting telecommunications carrier exclusive use of interoffice transmission facilities, including unused transmission media such as dark fiber, dedicated to a particular customer or carrier, or use of the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier, including the ILEC;

(ii) provide all technically feasible transmission facilities, features, functions, and capabilities that the requesting telecommunications carrier could use to provide telecommunications services;

(iii) permit, to the extent technically feasible, a requesting telecommunications carrier to connect such interoffice facilities to equipment designated by the requesting telecommunications carrier, including, but not limited to, the requesting telecommunications carrier's collocated facilities; and

(iv) permit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's digital cross-connect systems in the same manner that the incumbent LEC provides such functionality to interexchange carriers;

(3) The incumbent LEC shall provide a requesting telecommunications carrier use of packet transport defined as the transport of packetized information between (and including) two or more packet devices, or between interconnected transmission facilities which terminate at a packet device, including any intermediate routing or switching, without regard to the protocol or packet definition scheme involved. The packet transport network element shall include all features, functions and capabilities of the ILEC's packet transport network.

(e) *Signaling Networks and Call-Related Databases*.

(1) Signaling Networks.

(i) Signaling networks include, but are not limited to, signaling links and signaling transfer points.

(ii) When a requesting telecommunications carrier purchases unbundled switching capability from an incumbent LEC, the incumbent LEC shall provide access to its signaling network from that switch in the same manner in which it obtains such access itself.

(iii) An incumbent LEC shall provide a requesting telecommunications carrier with its own switching facilities access to the incumbent LEC's signaling network for each of the requesting telecommunications carrier's switches. This connection shall be made in the same manner as an incumbent LEC connects one of its own switches to a signal transfer point.

(iv) Under this paragraph, an incumbent LEC is not required to unbundle

those signaling links that connect service control points to switching transfer points or to permit a requesting telecommunications carrier to link its own signal transfer points directly to the incumbent LEC's switch or call-related databases;

(2) Call-Related Databases.

(i) Call-related databases are defined as databases, other than operations support systems, that are used in signaling networks for billing and collection or the transmission, routing, or other provision of a telecommunications service.

(ii) For purposes of switch query and database response through a signaling network, an incumbent LEC shall provide access to its call-related databases, including, but not limited to, the Line Information Database, Toll Free Calling database, downstream number portability databases, and Advanced Intelligent Network databases, by means of physical access at the signaling transfer point linked to the unbundled database.

(iii) An incumbent LEC shall allow a requesting telecommunications carrier that has purchased an incumbent LEC's local switching capability to use the incumbent LEC's service control point element in the same manner, and via the same signaling links, as the incumbent LEC itself.

(iv) An incumbent LEC shall allow a requesting telecommunications carrier that has deployed its own switch, and has linked that switch to an incumbent LEC's signaling system, to gain access to the incumbent LEC's service control point in a manner that allows the requesting carrier to provide any call-related, database-supported services to customers served by the requesting telecommunications carrier's switch.

(v) A state commission shall consider whether mechanisms mediating access to an incumbent LEC's Advanced Intelligent Network service control points are necessary, and if so, whether they will adequately safeguard against intentional or unintentional misuse of the incumbent LEC's Advanced Intelligent Network facilities.

(vi) An incumbent LEC shall provide a requesting telecommunications carrier with access to call-related databases in a manner that complies with section 222 of the Act;

(3) Service Management Systems.

(A) A service management system is defined as a computer database or system not part of the public switched network that, among other things:

(*1*) interconnects to the service control point and sends to that service control point the information and call processing instructions needed for a network switch to process and complete a telephone call; and

(*2*) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

(B) An incumbent LEC shall provide a requesting telecommunications carrier with the information necessary to enter correctly, or format for entry, the information relevant for input into the particular incumbent LEC service management system.

(C) An incumbent LEC shall provide a requesting telecommunications carrier the same access to design, create, test, and deploy Advanced Intelligent Network-based services at the service management system, through a service creation environment, that the incumbent LEC provides to itself.

(D) A state commission shall consider whether mechanisms mediating access to Advanced Intelligent Network service management systems and service creation environments are necessary, and if so, whether they will adequately safeguard against intentional or unintentional misuse of the incumbent LEC's Advanced Intelligent Network facilities.

(E) An incumbent LEC shall provide a requesting telecommunications carrier access to service management systems in a manner that complies with section 222 of the Act;

(f) *Operations Support Systems Functions*.

(1) Operations support systems functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information.

(2) An incumbent LEC that does not currently comply with this requirement shall do so as expeditiously as possible, but, in any event, no later than January 1, 1997; and

(g) *Operator Services and Directory Assistance*. An incumbent LEC shall provide access to operator service and directory assistance facilities where technically feasible.